



Installation Manual

TWM Performance Short Shifter

Subaru Forester up to 2005

Please Note: It is preferable to park on a flat surface, as you will have to engage and disengage the hand brake and shift from gears to neutral. If you cannot do so and are obliged to install the short shifter on a slightly inclined surface, place wooden blocks in front and behind the wheels to prevent the car from moving while you're working. Please read this manual completely before beginning to work on your car.

Estimated Installation Time: 60 minutes

Tools required:

- Flat head screw drivers (small and large)
- Philips head screw driver
- 2 x 12mm wrenches
- Flash light or shop light
- Needle nose pliers
- Shop towels or rags
- Metric socket set (with 12mm socket) and a ratchet with extension
- All purpose automotive grease (white Lithium based grease preferred)
- Dead blow hammer or plastic hammer



1. Unscrew the shift knob by rotating it counter-clockwise.

Remove the shift knob from the shift boot by tilting the shift knob sideways and pulling down on the shift boot. The boot opening will stretch enough to remove the shift knob. Put the shift knob in a safe place for re-installation later.



2. Lift up on the shifter trim surrounding the shifter once the shift knob is removed. Disconnect any electrical connectors beneath this portion once it is free. The front portion of the shifter trim can be now removed as shown below.

The rear portion of the console can also be removed for additional working space, however it is not required to remove it as the front section can be removed as shown.

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2. Continued.

Remove the shifter trim from the car and put in a safe place for re-installation later.



3. Depending on the year and trim level of your car, you may encounter a rubber sound deadening boot as shown to the left. Use a large flat head screwdriver to unscrew the 4 white clips holding the sound deadening material in place. You may also encounter staples at this point, remove them with needle nose pliers and remove the sound deadening material to access the shifter.

If your car is not equipped with this rubber boot proceed to the next step.



4. Use two 12mm wrenches to remove the nut on the side of the shifter. Use one wrench to hold the head of the bolt while loosening the nut on the other side with the other wrench.

Note: Pictured in an Impreza



5. The bolt which goes through the shifter must now be removed. There is not much clearance to remove this bolt, so the easiest way is to tilt the shifter as far as possible to the passenger side and gradually unscrew the bolt with a 12mm wrench. Once the bolt is unscrewed far enough it can be pulled out by hand as shown to the left.



6. Move the shifter back so it is free from the shift rod where it was held by the bolt you removed in the previous step. Rotate the shifter 180 degrees so the bend is facing the opposite direction. Remove the stock shifter from the bottom pivot point by prying back and downward as shown. This step requires some force so **USE CAUTION**. The white plastic ball will pop out of the cup at its base.

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6. Continued.

Remove the shifter from the car and bring to a work bench for disassembly.



7. Remove the metal sleeve from the stock shifter by pushing on one side with your finger and sliding it out the other side.



8. Use a flat head screwdriver to remove the stock rubber bushings by prying them out of the shifter as pictured to the left. Use caution not to damage them as they will be re-used with the TWM short shifter.



9. Place the TWM short shifter on a firm flat surface and press the rubber side bushings in to each side of the TWM short shifter.



10. Grease the metal center sleeve and insert it into the bushings in the shifter so it extends from one side of the shifter to the other. Make sure the metal sleeve is flush with the bushings on both sides of the shifter.



11. Grease the large pivot ball on the bottom of the TWM short shifter with automotive grease, white lithium based grease is preferred.



12. Place the shifter back in the car with the bend facing backward. Slide the shifter between the tabs on either side of the shift rod so the holes in the rod line up with the hole through the shifter. Place the bottom pivot ball above the bottom socket, without seating it yet.



13. Insert the bolt through the shift rod and shifter so it protrudes through the other side. Install the nut on to the threaded end of the bolt and tighten with a 12mm wrench while holding the head of the bolt with another 12mm wrench. Do not over tighten, this bolt only needs to be tightened to 10 ft/lbs, the shifter will feel stiff if the nut is over tightened.



14. Screw the shift knob on to the TWM shifter. Use the palm of your hand to force the shifter to pop into plastic pivot cup at the base. This may require a strong impact using the palm of your hand to seat the shifter. Remove the shift knob once the TWM shifter is popped in to the base cup.

CAUTION: If you are unable to seat the shifter by hand, a heavy dead blow hammer or plastic hammer may be used. It is important to protect the threads on the shifter otherwise they may be damaged.



15. Reverse steps 1 to 3 to re-install the center console and shift knob.



16. Thank you for choosing TWM Performance.

Legal Disclaimer

TWM Performance is not responsible for the misuse, incorrect installation, or failure of any product we sell.

Under no circumstances, including but not limited to negligence, will TWM Performance be liable for special or consequential damages that result from the use or inability to use our products. TWM Performance does not assume responsibility for any damage to the user, passenger or vehicle resulting from the operation of a TWM Performance product.

TO PROTECT USERS FROM INJURY OR DEATH. THE USER ASSUMES ALL RISKS. Autocrossing, track events, and high speed driving are all dangerous activities - always drive responsibly and safely.

Warranty

Installation of some TWM Performance products may or may not void factory warranties. Always keep OEM equipment that has been replaced in case work is required at the dealer or the vehicle is sold.

This warranty covers the **original purchasing consumer**. This warranty is limited to repair or replacement by TWM Performance of any TWM Performance product that fails because of a defect in materials or workmanship.

Warranty does not cover the following:

- Damage incurred to related vehicle components
- Regular day to day wear on vehicle
- Shipping costs for replacements
- Installation costs and vehicle down time
- Products that have been modified, incorrectly installed or misused.
- Mounting hardware and bearings